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PROCEEDINGS

of the American Society of Civil Engineers

2 PARTS

PART 2

Vol. LIV

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No. 7

"The Liberty Bell of Louvain"

Alfred D. Flinn

FOURTH of July, 1928, included in its programs a celebration such as that National Anniversary had never seen. "The Liberty Bell of Louvain" commemorated the participation by American Engineers in the mad days of 1914-1918 and proclaimed to all the world, goodwill and the hope for peace.

The occasion was the dedication of the new Louvain Library erected with funds contributed by a half-million Americans. In its tower were the carillon and the clock given by members and friends of sixteen national engineering societies in memory of those engineers of the United States of America who gave their lives in the service of their country and its allies in the Great War.

It all came about in this way: Louvain's ancient Library and a great many other buildings were mirned in the first rush of the war. Its University, often a leader in the early revival of scientific knowledge, suffered severely. In June, 1927, however, the University, many of its buildings having been restored, celebrated its 500th Anniversary. The new Library was well advanced in construction, but no financial provision had been made for the clock and the carillon, without which the graceful tower would be incomplete. Mr. Edward Dean Adams, a Fellow of the Society, our delegate to the anniversary celebration, proposed that the engineering societies of America give the clock and the carillon as a memorial. The suggestion was adopted, a plan formulated, and carried through. The clock and carillon on July 4th last were complete in place.

On the afternoon of July 3d, a party of fourteen official delegates of the Engineering Societies were guests of Prof. Van Hecke, head of the Engineering School of Louvain

(Centinued on page 4)

Topographic Mapping

COMMENTS relative to the topographic mapping of the United States which were made before the Surveying and Mapping Division and the City Planning Division at a joint meeting held last January are spread at length in Part I of this issue of Proceedings on pages 388 to 391 inclusive.

According to the statements "only 43% of the area of the United States is typographically mapped, and half the existing maps fail to meet present-day standards of accuracy". Interpreted literally, therefore, 78.5% of the area of the country is without the data necessary to carry on in an economical manner engineering projects of extensive character.

The Secretary has communicated with the President of the United States, but to be most effective in such matters those engineers who can come into personal or written contact with members of Congress should see that the situation and the merits of the case are understood by them. The comments detailed should help in this connection.

The Right Man?

UICK action by the right man means a trip to Europe with exceptional facilities for study in the hydraulic laboratories of Germany.

Unexpectedly, the 1928-29 Freeman Travelling Scholarship is available for award. It is highly desirable that full advantage be taken of the scholastic year abroad and choice of the recipient therefore will be

made promptly.

The conditions are briefly as follows: Scholarship, \$1,600, payable \$400 on Sept. 15 and \$100 monthly thereafter. Age limits, 24 and 35 years. A good grounding in German essential. Must be American citizen; graduate of a technical school of recognized standing; now a junior professor, an instructor, or an assistant in a technical school in which hydraulics is an important part of curriculum. Must be familiar with the mathematical treatment of hydraulic problems and well grounded in general mathematics. Should preferably have had experience in hydraulic design and construction. Desirable, although not required, that the applicant be a member, in some grade, of the So-

Address the Secretary, setting forth qualifications, *i.e.*, age, place of birth, education, experience, references, and send photograph. Forward promptly six letters of reference from former teachers, and employers, including one from the administrative officer of the institution with which now associated. Be specific in regard to training in hydraulics. State also field of engineering in which it is proposed to work in subsequent years.

The award will be made to the candidate who seems best equipped to learn European hydraulic practice and to disseminate such knowledge in the United States. The last day for filing an application will be Sept. 10, and the award will be made on or before Sept. 15.

Society Income

THE year 1928 in many ways will be the heyday of the Society's growth and activity. "Heyday", the dictionary says, is "the time of highest strength, vigor or bloom". It differs from "zenith", which is "the greatest height, or summit". Presumably there may be recurring "heydays" and that is expected in the case of the Society.

In 1928 the Society will enjoy its greatest annual income, will make its largest expenditure, will have more members on which to spend it, and, except for one previous occasion (in 1921), will make a larger ex-

penditure per member.

The average annual income from dues, of Juniors, Associate Members, Members, Affiliates including those exempt because of long affiliation, the pro-rated dues of newly elected members, and the one year's exemptions to new Juniors, will approximate \$18.50 per member for 1928. This has been lower in the past three years than formerly because of the pro-rating policy and the Junior exemptions.

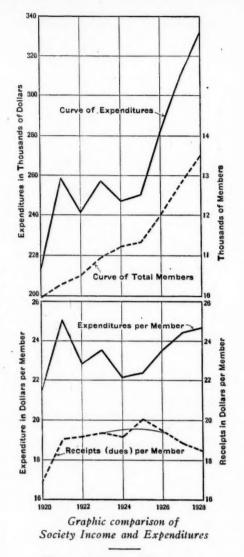
Notwithstanding the lower rate of income from this source, the gross income will be the largest in the history of the Society. There are other sources of income than dues, principally the rent from the 57th Street

Property.

Interest also is a source of income. A nominal profit to cover handling charges is made on the binding of Proceedings and Transactions, on certificates, badges, etc., and there is quite an item of income from the sale of the publications to others than members.

It is practicable, therefore, to expend about \$6.06 more in behalf of each member than he contributes. The estimated figures for 1928 are: Average dues per member, \$18.50, and expenditure per member, \$24.56; approximately a 33% difference.

The accompanying charts show the relation of these four elements: total expenditures, total membership, average dues, and average expenditure per member.



Read the Report

THE Report (partial) of the Technical Expansion Committee to the Board of Direction printed in full on page 381 of Part I of this issue of Proceedings is full of meat for those interested in the technical development of the Society.

The Report expresses in terse sentences a complete picture of the function of the Technical Divisions as vital parts of Society machinery. Through them work is to start, be developed, discussed, perfected, and when noted as authoritative, it is to be promulgated as such. The process is clear. There remains only the acceptance of responsibility by the membership itself. Nor will this fail because it has already been accepted in principle and a suitable working program will be furthered by other recommendations, such as

the provision for continuity of personnel and procedure within the Division Executive Committees.

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The conception with respect to the Society's publications is also clearly stated. Proceedings and Transactions are to be made more valuable by what perhaps may be called concentration, without, however, curtailment of essential facts. Proceedings will endeavor to present all the Society's technical developments as promptly as possible, including, of course, contributions by individuals. Transactions will perpetuate such of these as are considered for any reason to merit that treatment, and, for greater flexibility, the products of the Technical Division Committees will appear as a series of separate publications.

It is proposed to discontinue the Monthly Meetings now held in New York for the presentation of papers.

The entire Report calls for careful reading by the membership.

San Diego

A NY meeting of the Society is a good place to make, foster, or meet friends, but San Diego provides an unusual environment.

True, it is not a center of population, engineering or otherwise. Except members in Mexico it can draw from only its northeast quadrant, but that quadrant is the whole of the United States and Canada, and in going to and from points north, northeast or east, or south, for that matter, there are many things to interest and appeal.

The airplane is to be the central topic of the meeting and if one has any interest in airplanes that interest ought to be satisfied as they will be discussed in their relation to the weather, their relation to routing, to landing, to freight and passenger service, to the operations of the Navy. San Diego is one of the country's largest Naval bases and provides every possible facility to study "The Eyes of the Fleet".

Unless hopes do not materialize and if plans do not go agley those in attendance will be treated on Friday to one of the most spectacular and thrilling experiences imaginable. It will be on the water and in the air, with "Uncle Sam's" Navy and Marine Corps personnel as hosts and equipment as properties.

For those interested in the Gov-

ernment's policy with respect to reclamation, the presentation of a report by the committee of the Irrigation Division on Thursday should be particularly valuable. The report is printed in tentative form in Part I of this issue of Proceedings. It is important and should be studied in advance of the meeting.

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For the ladies the San Diego local members have provided every facility for seeing their beautiful part of this world—Balboa Park, Point Loma, The Silver Strand, Mission Beach—color everywhere, on land,

at sea, and in the air.

The meeting dates are October 3, 4, and 5, but the local members are not content with three days. They suggest points of interest in and near San Diego that call for a stay of not less than a week and perhaps they are right. It would be well to plan on a week.

Two New Prizes

THROUGH the generosity of Charles Evan Fowler, Member, the Society is now in a position to announce two new prizes. One prize is for some notable achievement for the advancement of the engineering profession in its ethical, material, or physical aspects. The other is for a work of outstanding merit in the architectural design of a bridge or other engineering structure.

Rules for the awards have been drawn up and will be printed in full in a forthcoming issue of Proceedings. In brief, the ideas are as follows:

The Phebe Hobson Fowler Professional Award is to go to some individual for what he has done towards the betterment of the profession, possibly ethically, possibly materially, i.e., with respect to remuneration, or conditions of employment. His work may have been in the interest of a large group, or a certain class, or a branch of the profession. The name indicates the intent fairly well.

The lines are not tightly drawn as to the manner of the betterment. Conspicuous endeavor in any line which has the good of the profession in matters other than technical as its objective, is to be officially recognized.

The Phebe Hobson Fowler Architectural Award is to recognize out-

standing merit in the architectural design of engineering structures. Such design must be fundamentally artistic, complying with the principles of simplicity, symmetry, harmony and proportion, and not merely a structure decorated with architectural details or trimmings. Constructed, not projected, work is to be the basis of the award.

Suitable medallions and accompanying certificates are now being prepared and in all probability the first awards will be made at the Annual Convention in 1929. The Committee having these awards in charge will wish the widest possible range of suggestions, and members should feel it a duty to make known to them any and all possible candidates.

September Proceedings

ACK to normalcy" is the order of the day and with this issue Proceedings returns to its more or less standard size. For the past twelve months the output of papers has been unusually large due to an aggressive effort to place before the membership a great amount of valuable material. The remaining issues of this year will be of the former smaller size. Four short papers and a report constitute this month's issue.

Writing under the heading of "Concrete Pavement Over Poor Sub-Grade at Port Newark, New Jersey", Mr. Chester Mueller, Junior, gives an excellent answer to the eternal question of how to meet the problem of poor sub-grade.

Of the papers presented before Technical Divisions at the Columbus, Ohio, meeting last October, three are included in this issue: Two Highway papers and one from the Sanitary Engineering Division. "The Practical Utility of Highway Transport Surveys" is adequately described by Mr. G. F. Schlesinger, Member. The author explains how data obtained by a study of the State highways in Ohio were utilized in formulating a plan and budget for future highway improvements.

The injustice of forcing taxpayers to bear the cost of a public improvement only when the benefits derived are immediate or obvious is emphasized in a Division paper by Mr. E. G. Bradbury, Member. Under the title, "County Sewer District Work in Ohio and Assessment of

Costs According to Benefits", he explains clearly and in detail his method of levying equitable assessments on the more remote property owners.

"The engineer is primarily responsible for the proper design and upkeep of the highway so as to reduce to a minimum the conditions that contribute to accident." In stating "The Engineer's Part in Making the Highway Safe", Mr. A. H. Hinkle, Member, uses the foregoing sentence as his text. The author acknowledges the presence of factors over which an engineer has no control but emphasizes the thought that accidents due to highway conditions are considerable and that the engineer's responsibility is not to be ignored.

In order that interested members may be better prepared to discuss the subject matter, the Progress Report of the Committee of the Irrigation Division on "A National Reclamation Policy" is published in advance of its presentation at a Regular Division Meeting. The policies governing the reclamation of arid lands are conveniently listed in sixteen terse paragraphs.

In addition to these papers there are 36 discussions on 16 papers and reports that have been published in preceding issues of the Proceedings.

A Fine Trip

T is proposed that those from the east going to the San Diego meeting travel together, stopping at Colorado Springs, Salt Lake City, spending two or three days in Bryce Canyon and Zion National Park, a day or two around Los Angeles and return via the Grand Canyon of the Colorado.

Plans started earlier in regard to such a trip went wrong at the last moment and the new plan has not had the publicity to be desired. However it may not be too late now to make up a Pullman or two of those who would like to travel together and see these interesting places.

The trip from New York as planned will require about three weeks and cost about \$450 with all side trips and all expenses included, except meals at San Diego during the meeting.

Any one interested should write or wire at once to the Secretary.

Employment Service

N failing to recognize the possibilities of the Engineering Societies Employment Service too many members are overlooking a

good bet.

Strange as it may seem the greatest difficulty that the Service has to contend with to-day is in finding suitable men to fill the jobs that are offered. Since the first of this year, requests have been made to the Service to find suitable engineers for 251 jobs that were to pay salaries of \$5,000 or over per year. Approximately half these jobs are understood to be still open awaiting the right man.

The Chicago, San Francisco, and New York offices placed 832 engineers in positions in the first six months of this year. One of them carried a salary of \$12,000; one was a \$10,000 job; one, \$8,000; one, \$7,500; one, \$7,000; three were \$6,000; and twenty-five were \$5,000 per year. These are actual placements made through the Employ-

ment Service.

There are two ways of directly availing oneself of the opportunities. One is to file an application forwarding experience data, and expect-ing to be held in mind. The other is to subscribe to the bulletin which lists positions open and upon occasion to ask for consideration in connection with some specific job for which the requirements seem to particularly fit one's qualifications. A less direct method, that applies to those interested in only unusual appointments or as consultants, is to file, and keep up to date, the experience records which form one of the Society's sources of information regarding civil engineers, use of which is frequently made.

Miscellany

In accordance with the action of the Board of Direction, the membership will be asked again in the near future to express its view on whether or not the Society should join American Engineering Council.

Changes in the Constitution of the

Council are in process which the Board has stated "it can fully approve".

The Board action, in the form of a resolution, is detailed on page 384 of Part I of this issue of Proceedings. A statement by three members of the Board ap-pointed for that purpose will accompany the ballot when issued.

Those who are members of the Power Division will be interested to know of the elimination of that provision in the Division's Constitution calling for annual dues

It is quite possible that with this provision eliminated many members may wish to be enrolled and so feel that they are participating in another of the Society's

Expression is looked for from the membership on three matters before the end of the year. The nomination and elecof the year. The nomination and election of officers is in process; a vote is to be canvassed in regard to the proposed change in the Constitution re Honorary Members and a referendum will be asked regarding joining American Engineering

"The Liberty Bell of Louvain"

(Continued from page 1)

University, at luncheon in his home. That evening Mr. Adams was host at a dinner at the Hotel Astoria in Brussels, and later the engineers and their ladies attended a reception at the American Embassy given by Ambassador and Mrs. Gibson.

Swelled to three- or fourscore, on the morning of the 4th, the American Engineering party became guests of the Louvain University Associa-tion of Engineers. At the "Halles Universitaire" Rector Ladeuze conferred upon Mr. Adams the degree of Doctor honoris causa. Then the party was conveyed to the new engineering college at d'Héverlé Park, where luncheon for more than 200 was served in the old chateau.

At 1:30 P. M., the academic party assembled at the Halles Universitaire and donned caps and gowns. Preceded by medieval trumpeters, this stately cortege, with military escort, proceeded through streets decorated with Belgian and American flags and thronged with cheering people to the public square, on which the Library faces. Meanwhile the multitudes had been gathering in this Place du Peuple and connecting streets, to a total estimated at ten thousand.

To the dais were escorted the American Ambassador and Mrs. Gibson, Ministers of the Belgian Government, The Rector and other officers of the University, Cardinal Van Roey, representatives of the Commission-for-Relief-in-Belgium, and members of the Committee on War Memorial to American Engineers. When all were in place, the Prince and Princess appeared, as representatives of the King and Queen, and occupied the central front seats, amidst many manifestations of their popularity.

The blessing of the building and the bells, accompanied with beautiful music, was made audible by means of a "loud speaker" concealed in the tower. Cantatas by the school children followed. Ámbassador Gibson presented the Library Building and delivered the keys to Rector Ladeuze. Four silk flags of American organizations were presented: one from the four senior national engineering societies of the United States displayed their emblems in blue on a field of white, encircled in golden yellow.

Toward the end of the ceremony the Committee delivered the address of presentation for the carillon, the clock, and their maintenance endowment, printed in French on a scroll, the deed of gift and trust, hand-somely bound, and, in green Levant leather, the large memorial record book, containing the names of more than 2,500 engineers of the United States who had given their lives in the Great War and of contributors

to the memorial.

At six, a banquet for 700 was served in the Great Hall, flooded with the light of the setting sun. Afterward as the twilight slowly darkened, sweet music through the still air from the excellently tuned bells played by the skillful hands and feet of Chevalier Denyn, up in the tower, as he produced number after number of a fine program. Fireworks at ten o'clock illuminated the magnificent tower and left deep impressions on many memories of scenes and sounds of great beauty and dignity. Thus ended the 4th of July, 1928, at Lou-

On the 5th of July, three receptions were given for the American visitors, in Brussels: one at the ancient City Hall, another by the Central Committee of Belgian Industries, in its commodious quarters, and in the evening a delightful concert and dance at the "Residence Palace", attended by the Prince and Princess.

"The Liberty Bell of Louvain", the Bourdon of the carillon, will recall for centuries the sacrifices of American Engineers in 1914-1918, and the tribute to their memory and to their allies by the engineers of